

What is claimed is:

1. A method for forming metal lines in a semiconductor device, comprising:
forming first metal lines and a first insulation layer on the first metal lines;
etching the first insulation layer to expose the first metal lines;
depositing a conductive material into the etched portion of the first insulation layer to form contact plugs;
forming a second insulation layer on the resultant structure;
etching the second insulation layer to expose the contact plugs;
depositing a material for cores into the etched portions of the second insulation layer to form the cores;
selectively removing the second insulation layer to expose the cores; and
depositing second metal lines on both sides of the cores to branch current to both sides of the cores.
2. The method of claim 1, wherein the material for the cores is TaN or TiN.
3. The method of claim 1, wherein in forming the second insulation layer, a nitride layer is formed on the resultant structure prior to the formation of the second insulation layer, and in etching the second insulation layer, the second insulation layer and the nitride layer are sequentially etched to expose the contact plugs.
4. The method of claim 3, wherein the nitride layer is used for etch-stop.